Opening Statement of the Honorable Judy Biggert, Chairman
Science Subcommittee on Energy
Winning Teams and Innovative Technologies
from the 2005 Solar Decathlon
November 2, 2005

Good afternoon, and welcome to this Energy Subcommittee hearing on the 2005 Solar Decathlon, and the winning technologies previewed at that event.

In mid-October, 18 teams of undergraduate and graduate students from universities across the country assembled on the National Mall to demonstrate something amazing. After two years of work, they gathered in our nation's capital to demonstrate how a home could be powered entirely by solar energy.

These students and their projects faced some serious challenges. After nearly 2 months baking in the sun, the Washington area received its first measurable rainfall on the opening day of the decathlon. While I was not in Washington at the time, I understand it was cloudy and rainy just about every day thereafter through the last day of the event.

Now, that kind of weather isn't so uncommon in my home state of Illinois. During winters in Chicago, we sometimes go for weeks without seeing the sun.

So despite the conditions, the teams persevered and their technologies worked, for the most part. And they needed to work in order to demonstrate the viability of solar power in places like Chicago in the wintertime. In the end, the projects were evaluated based on 10 different criteria, many of the same criteria that Americans use to evaluate their choices when buying a home.

Today, we're going to hear from some of the winners of the 2005 Solar Decathlon, as they "show-and-tell" us about the homes they designed and built for the Decathlon. We hope to have some fun here, but we also want to engage these teams of young scientists and engineers in a serious conversation about the potential for solar energy in this country.

As the Chairman of this subcommittee and a Member of the Education Committee, I am especially pleased about the number of students actively involved in the Decathlon, and in this important dialogue today. I think it is safe to say that the members of this subcommittee are very much looking forward to learning more from you. We hope you will talk today about the kinds of technologies and designs you used. We hope you will share with us what obstacles you believe must still be overcome before the nation can benefit from the widespread use of passive and active solar thermal systems, photovoltaic solar electricity, and on-site energy storage, both electrical and thermal. Finally, we hope you will discuss the benefits of a competition such as the Solar Decathlon and about what we can do, as policy makers, to help move solar and efficiency technologies into the mainstream building market.

By 2025, our demand for energy is expected to grow by 50 percent, and energy for our buildings will drive a significant portion of that demand. Today, buildings alone use one-third of our total domestic energy and forty percent of our electricity. Solar energy has many advantages: it's made in America, non-polluting, abundant, and easy to build and permit. If we could produce just a *fraction* of the power for our buildings from the sun and, at the same time, reduce our total energy demand by using smarter technologies and designs, the impact on our energy outlook would be tremendous.

That is why we are so optimistic about this competition. Young scientists, engineers, and architects – the future builders of America – learn about the latest energy technologies. They learn to work together to balance aesthetics with energy utility to make their homes attractive to the average buyer. Finally, they inspire their peers, the public, and policymakers to think in new ways about how we use our energy. This is the kind of inspiration the nation needs as we continue to confront a variety of energy challenges.

So again, let me extend our special thanks to the exceptional students, as well as their faculty advisors, for participating in the Decathlon and for joining us here today. I also want to welcome our witness from the Department of Energy. The Department is to be commended for partnering with the National Renewable Energy Laboratory, the American Institute of Architects, the National Association of Home Builders, BP, the D.I.Y. Network, and Sprint to host the Decathlon.

We look forward to the testimony of all the witnesses here today. With that, I will yield to the Subcommittee's Ranking Member, Mr. Honda, for his opening statement.